

Applicants appreciate the Examiner's acknowledgement of allowable subject matter in Claims 8, 26, and 47 if written in independent form to include all of the limitations of the base claim and any intervening claims.

1. Claims 33-36 and 97 have been objected to as being in improper form. Applicants have amended claims 32 and 97 to correct the deficiencies. Reconsideration and withdrawal of the objections is respectfully requested.

2. Claims 9 and 99 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite.. Claims 9 and 99 have been amended accordingly and withdrawal of the rejections is respectfully requested.

3. Claims 1-7, 19-11, 20-25, 27-32, 37-46, 48-50, 67-70, 72-75, 77-84, 86-88, 90-91, 95-105, and 108-119 have been rejected under 35 U.S.C. §102(e) as being anticipated by Berry (US 6,231,598). Applicants respectfully traverse the rejection and submit that the present invention as recited in the above claims as amended are not anticipated by Berry.

The Applicants claim a stent for holding open a blood vessel formed of a plurality of triangular cells. Each triangular cell includes a first, second and third loop containing sections. The second loop containing section is joined to the first loop containing section at a first junction point. The third loop containing section is joined to the first loop containing section at a second junction point. The third loop connection is also joined to the second loop containing section at a third junction point. First loop containing sections in the plurality of triangular cells are joined

together through the second and third loop containing sections without connection directly between the first loop containing sections. (See Applicants' specification, Page 10, lines 17-28 and page 11, lines 1-2 and Figs. 5-6).

Berry, on the other hand, and as defined in the Examiner's Office Action, discloses a first loop containing section (301(e)) connected to another first loop containing section directly through a longitudinal strut. Both sections in Berry are connected directly through longitudinal struts (15, 32, 34) instead of a second and third loop containing section as the Applicants claim.

Applicants respectfully submit that for the claims to be anticipated by a reference in terms of 35 U.S.C. §102(e), every element of the claimed invention must be identically shown in a single reference and arranged as in the claims under review. Berry does not disclose a first loop containing section joined together through a second and third loop containing sections without connection directly between the first loop containing sections.

Because every element of the claimed invention is not identically shown and arranged as in Berry, reconsideration and withdrawal of the rejection is respectfully requested.

Regarding Claim 11, Applicants contend that Fig. 28 in Berry does not disclose cells with circumferential lengths longer than longitudinal lengths in an expanded position as the Applicants claim. The Applicants claims provide sections that contributes to longitudinal flexibility of the stent and sections that contributes to radial support of the stent. The stent taught in Berry utilizes a longitudinal strut between the Examiner's stated first loop containing sections. Unlike Berry, the Applicants' claimed invention has second and third loop containing sections connected to the first loop containing section, rather than a first loop containing section connected to itself as taught in Berry. The second and third loop containing sections as claimed

by the Applicants provides longitudinal flexibility. Flexibility in Berry cannot be achieved as in the Applicants claimed invention due to this difference in structure. Applicants point to the cell formed between lateral struts (32) in Berry's Fig. 28, which illustrates the opposite of what the Applicants claim, namely circumferential lengths shorter than longitudinal lengths. Because every element of the claimed invention is not identically shown and arranged as in Berry, reconsideration and withdrawal of the rejection is respectfully requested.

Regarding claim 20, Applicants repeat the previous arguments concerning the structural difference of Berry and what the Applicants claim. In addition, Berry does not teach the finishing of a stent as the Applicants claim, namely a stent plated in one of the following ways: radiopaque material, protective material, embedding with medicine, or covering with a material. Reconsideration and withdrawal of the rejection is respectfully requested.

Regarding Claims 21-25, 27-32, 37-46 and 48-50, Applicants repeat the previous arguments concerning the structural difference of Berry and what the Applicants claim. Berry teaches the opposite of what the Applicants claim, namely, a plurality of second meander patterns intertwined with a plurality of first meander patterns to form triangular cells such that the first meander patterns are joined together through the second meander patterns without connection directly between the first meander patterns. Berry, clearly has connection between first meander patterns through the longitudinal struts. Withdrawal of the rejection is respectfully requested.

Regarding claims 67-70, 72-75, 77-81, 83-84, 86-88 and 90-91, again, clearly Berry does not disclose what the Applicants claim. The Applicants claim that the first and the fourth members are joined together through the fifth, the sixth, the seventh, the eighth, the ninth and the

tenth members without connection directly between first and fourth members. Berry discloses connection between the first and forth members through longitudinal struts. Because every element of the claimed invention is not identically shown and arranged as in Berry, reconsideration and withdrawal of the rejection is respectfully requested.

Regarding claims 95-104, 106-114 and 115-117, Berry does not disclose the arrangement as claimed by the Applicants. The Applicants claim a plurality of first loop containing sections joined together through second and third loop containing sections without connection directly between the first loop containing sections. Berry teaches connection directly between the first loop containing sections, which is the structure the Applicants claimed invention avoids for advantages previously mentioned. Withdrawal of the rejections is respectfully requested.

As to claim 105, Applicants repeat the arguments previously made with respect to claim 11. As to 118-119, Applicants repeat the arguments previously made with respect to claim 108, and add that Berry does not teach first circumferential bands joined together through second circumferential bands without connection directly between first circumferential bands. Reconsideration and withdrawal of the rejection is respectfully requested.

4. Claims 71, 82, 85, 89, and 92 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Berry in view of Official Notice. Berry discloses the length of each segments A and B to be the same within each segment A and B.(See, Col. 12, lines 53-67) Berry teaches away from what the Applicants claim by also disclosing that shortening of the interconnection segment (21), noted by the Examiner as containing fifth through tenth members, reduces the potential benefit of the curvilinear struts (22,23). The Applicants claim that at least

one of the fifth through tenth members are shorter in length for the benefit of providing different flexibility or radial compression characteristics to the stent. Since Berry does not teach or suggest what the Applicants claim, but in fact teaches away from what is claimed, withdrawal of the rejection is respectfully requested.

CONCLUSION

Based on the foregoing remarks, it is respectfully submitted that the claims as currently amended are patentable and in condition for allowance.

If any issues remain, or if the Examiner has any suggestions for expediting allowance of this application, he is respectfully requested to contact the undersigned at the telephone number listed below.

Favorable consideration is respectfully requested.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4303-4003. **A DUPLICATE OF THIS DOCUMENT IS ATTACHED.**

Respectfully submitted,

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Dated: July 26, 2002

By:



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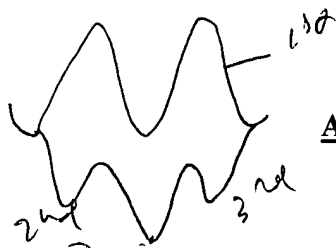
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APPENDIX

In the Claims:

Please amend the claims to read as follows:

F. 4 Invention

(Amended) 1. . A stent for holding open a blood vessel formed of a plurality of triangular cells, each triangular cell comprising:

a first loop containing section, the first loop containing section arranged generally in the circumferential direction;

a second loop containing section joined to the first loop containing section at a first junction point; and

a third loop containing section joined to the first loop containing section at a second junction point and joined to the second loop containing section at a third junction point such that
logically alternate between each set of
a plurality of first loop containing sections are joined together through the second and third loop containing sections without connection directly between the first loop containing sections

(Amended) 9. A stent according to claims 1 or 5, wherein the second and [third] first junction [point] points are circumferentially aligned.

(Amended) 21. A stent for widening a vessel in the human body comprising:

a plurality of first meander patterns;

F. 3
Invention

F.

a plurality of second meander patterns intertwined with the first meander patterns to form

triangular cells such that the first meander patterns are joined together through the second meander patterns without connection directly between the first meander patterns.

See F.3. Invention & P.7, 2nd paragraph ? Do a search.

(Amended) 32. A stent according to [claims 24 or 28] claim 24, wherein the second and third loop containing sections each have two loops.

Cl. 37: requires further Amends.

(Amended) 67. An expandable stent comprising a plurality of enclosed flexible spaces, each of the plurality of enclosed flexible spaces forming a plurality of triangular cells, each triangular cell including:

- a) a first member having a first end and a second end;
- b) a second member having a first end and a second end;
- c) a third member having a first end and a second end;
- d) a fourth member having a first end and a second end; the first end of the first member communicating with the first end of the second member, the second end of the second member communicating with the second end of the third member, and the first end of the third member communicating with the first end of the fourth member;
- e) the first member and the second member with the curved portion at their ends forming a first loop;
- f) the third member and the fourth member with the curved portion at their ends forming a second loop;
- g) a fifth member having a first end and a second end;

- h) a sixth member having a first end and a second end;
- i) a seventh member having a first end and a second end;
- j) an eighth member having a first end and a second end;
- k) a ninth member having a first end and a second end; and
- l) a tenth member having a first end and a second end, the first end of the fifth member coupled to the second end of the first member, the second end of the fifth member communicating with the second end of the sixth member, the first end of the sixth member communicating with the first end of the seventh member, the second end of the seventh member communicating with the second end of the eighth member, the first end of the eighth member communicating with the first end of the ninth member, the second end of the ninth member communicating with the second end of the tenth member, and the first end of the of the tenth member coupled to the second end of the fourth member;
- m) the fifth member and the sixth member with the curved portion at their ends forming a third loop;
- n) the seventh member and the eighth member with the curved portion at their ends forming a fourth loop; and
- o) the ninth member and the tenth member with the curved portion at their ends forming a fifth loop, such that the first and the fourth members are joined together through the fifth, the sixth, the seventh, the eighth, the ninth and the tenth members without connection directly between first and fourth members. *of adjacent cells*

F. 3, invention

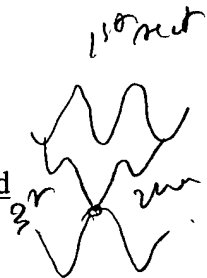
(Amended) 95. A stent for holding open a blood vessel formed of a plurality of triangular cells, each triangular cell comprising:

a first loop containing section, the first loop containing section arranged generally in the circumferential direction, the loops in said first loop containing section occurring at a first frequency;

a second loop containing section, the second loop containing section arranged generally in the circumferential direction, the loops in said second loop containing section [also] occurring at [said first] a second frequency; and

a third loop containing section, [the third loop containing section], the loops in said third loop containing section also occurring at a second frequency that is higher than said first frequency, [disposed in the generally circumferential space between said first and second loop containing sections and alternately] said third loop containing section joined to said first and second loop containing sections such that a plurality of first loop containing sections are joined together through the second and third loop containing sections without connection directly between the first loop containing sections.

of adjacent cells.



(Amended) 96. A stent according to claim 95, wherein the first loop containing section [and second loop containing sections are] is relatively adapted to enable radial support and the second and third loop containing [section is] sections are relatively adapted to enable longitudinal flexibility.

(Amended) 97. A stent according to claim 95, wherein the first loop [and second] containing sections have wider struts than the second and third loop containing [section] sections.

(Amended) 98. A stent according to claim 95, wherein the first [and second] loop containing [sections have] section has two loops for every three loops combined of said second and third loop containing [section] sections.

(Amended) 99. A stent according to claim 95, wherein the [higher frequency elements] loops in the second and third loop containing sections [provide] provides improved flexibility.

(Amended) 100. A stent according to claim 99, wherein, while flexing, [the higher frequency elements] loops in the second and third loop containing sections have lower maximal strain of the expanded stent within a blood vessel caused by a pulsing of blood.

(Amended) 101. A stent according to any of claim 95, wherein the first [and second loop containing sections are] loop containing section is 180 degrees out of phase with [each other] the second and third loop containing sections.

(Amended) 102. A stent according to any of claim 101, wherein the first [and second] loop containing [sections are] section is joined to said second and third loop containing sections such as to form a plurality of cells, each of which include two loops [of one] of said first [or second

loop containing sections] loop containing section and three loops of said second and third loop containing [section] sections combined.

(Amended) 108. A stent for widening a vessel in the human body formed of a plurality of triangular cells comprising:

a plurality of first circumferential bands containing a pattern of loops at a first frequency;
a plurality of second circumferential bands containing a pattern of loops at a second frequency higher than said first frequency, alternating with said first circumferential bands and periodically coupled thereto to form cells such that said first circumferential bands are joined ^{alternately} _η together through said second circumferential bands ~~[without connection directly between said~~ first circumferential bands]